



**PATIENT PRESENTING CLINICAL SIGNS**

Mollie Ritter History: Murmur 3/5; EKG revealed tall P waves. BW WNL except increased ALP and ALKP. Not on any medications.

**SPECIES ULTRASONOGRAPHIC EXAMINATION OF THE ABDOMEN**

Canine **Urinary System**

The urinary bladder wall is normal in thickness and the mucosal surface is smooth. The bladder lumen is moderately distended with anechoic urine. No masses, inflammatory changes or calculi are observed. Ureteral papillae and visualized portion of the proximal urethra, visible to a depth of 2 cm, are normal.

**BREED**

Terrier Mix

**SEX**

Spayed Female

The left kidney is normal in size (4.54 cm in length) with a normal shape, architecture and smooth peripheral margins. There is a normal 1:3 cortex to medulla ratio with normal corticomedullary distinction. There is no evidence of pyelectasia, nephroliths, infarcts or hydronephrosis.

**AGE**

9 years

**Adrenal Glands**

The left adrenal gland is borderline enlarged (0.52 cm at cranial pole) (0.62 cm at caudal pole) with a normal shape and homogenous parenchyma. The glandular echogenicity and detail are unremarkable. Capsule, cortex, and medullary definition are normal. The phrenicoabdominal vein and surrounding vasculature are normal.

**WEIGHT**

20 lbs

The right adrenal gland is in normal size (0.74 cm at cranial pole) (0.50 cm at caudal pole) with a normal shape and homogenous parenchyma. The glandular echogenicity and detail are unremarkable. Capsule, cortex, and medullary definition are normal. The phrenicoabdominal vein and surrounding vasculature are normal.

**INTERPRETED BY**

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Animal Internal Medicine*)

**IMAGING PERFORMED BY**

Tasha

**Spleen**

The spleen is normal in size (1.29 cm in width at the level of the hilus) with a normal capsular contour. There is appropriate echogenicity and echotexture. No focal lesions are observed. Splenic vasculature is normal.

**HOSPITAL NAME**

Dillsburg VC

**Liver**

The liver is subjectively prominent in size with normal curvilinear peripheral contours. The parenchyma is hypoechoic relative to the spleen and mildly heterogenous in appearance. No distinct focal lesions are observed. Hepatic vasculature and intrahepatic biliary tracts are of normal volume with no evidence of congestion.

**REFERRING VET**

Dr. Crow

The gall bladder lumen is moderately distended. The wall is thin and smooth. Luminal contents are anechoic. The cystic and common bile ducts are normal/not seen.

**Gastrointestinal**

The lumen is not distended. The gastric wall is normal in thickness with a normal layering pattern. The small intestinal lumen is not dilated. The small intestinal wall thickness is normal with a normal layering pattern and appropriate mural detail. Discrete masses are not identified. The colonic wall is normal. There is no evidence of an obstructive pattern.

**INVOICE**

12182

**DATE**

2.9.23

### ***Pancreas***

The region of the pancreas is isoechoic relative to surrounding omental fat. No obvious parenchymal abnormalities are observed. There is no evidence of regional inflammation or effusion.

### ***Free Abdomen***

The peritoneal cavity is normal. There is no evidence of inflammation or effusion. The abdominal lymph nodes are normal/not visible.

## **ULTRASONOGRAPHIC FINDINGS**

### **Primary Findings**

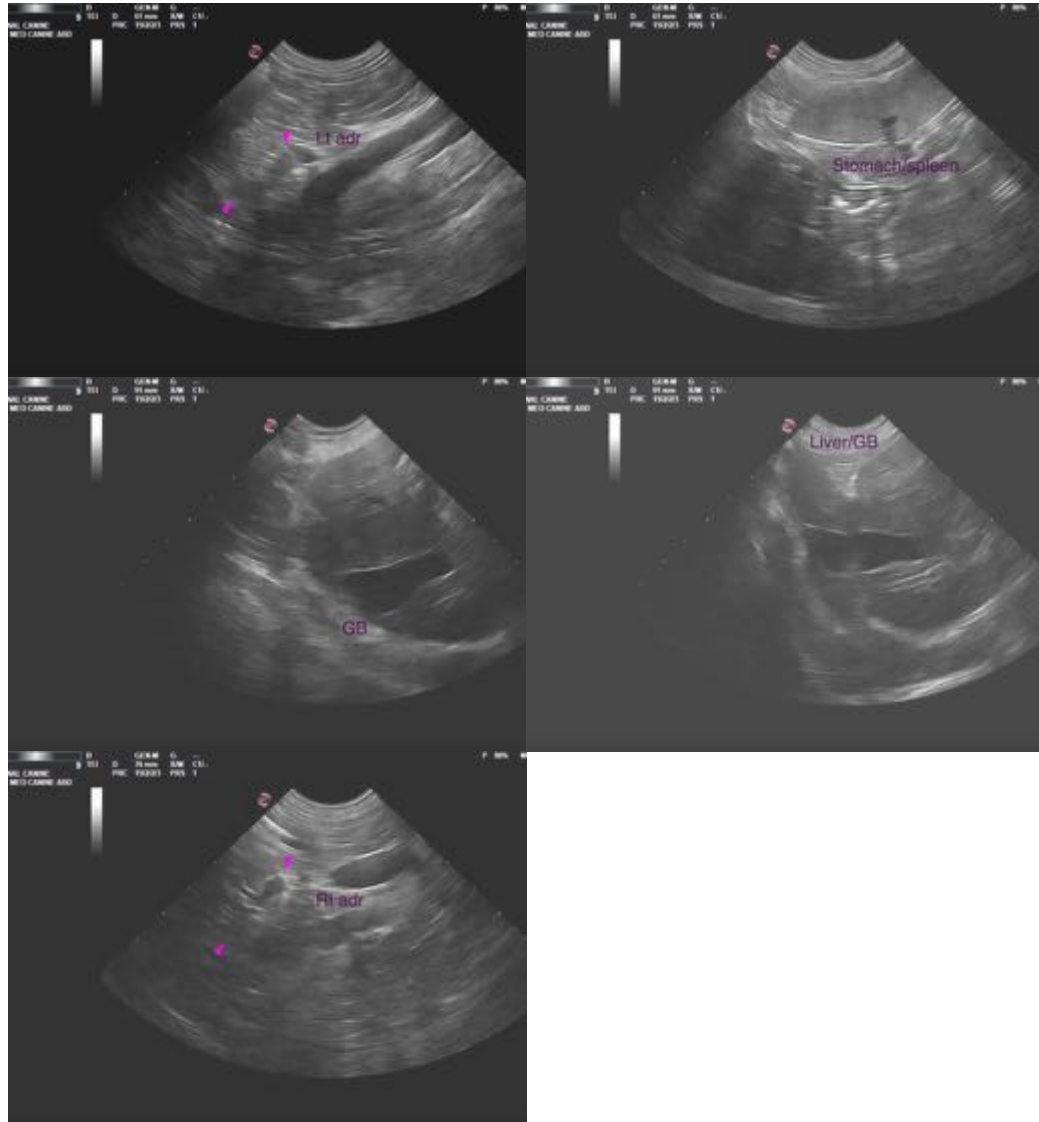
- Nonspecific diffuse hepatopathy (This is a new finding compared to the previous sonogram). Differentials will depend on the liver enzyme pattern. If the ALP is disproportionately elevated relative to the ALT, a benign process (i.e., regenerative nodular hyperplasia) would be favored. If the ALT is substantially elevated, other more insidious hepatopathies (i.e., inflammatory disease, hepatotoxicosis (i.e., copper), fibrosis, etc.) would be considered.

### **Secondary Findings**

- Borderline left adrenomegaly. (This is a new finding compared to the previous sonogram).

## **INTERPRETATION OF THE FINDINGS & FURTHER RECOMMENDATIONS**

- If the ALT is substantially elevated, consider the following:
  1. Hepatic tissue sampling (i.e., fine-needle aspirate or biopsies). If biopsies are pursued, aerobic and anaerobic bile cultures should be submitted along with hepatic copper quantitation.
  2. Pre-and postprandial serum bile acids
  3. +/- Leptospirosis testing (i.e., blood and urine PCR, serology).
- If the ALP is disproportionately elevated relative to the ALT, bloodwork should be repeated in 3 months to assess for worsening values. If values continue to increase, a repeat abdominal ultrasound +/- hepatic tissue sampling may be warranted.
- Consider testing for hyperadrenocorticism with a low-dose dexamethasone suppression test or ACTH stimulation test if clinical signs (i.e., PU/PD) develop.
- Regarding the tall T waves, consider consultation with a board-certified cardiologist.



The information and recommendations provided are based on the images presented by the referring veterinarian/sonographer. No evaluation can be communicated regarding pathology that was not visible in the image/video clips provided.

Thank you for this referral. If the clinical or image interpretation does not parallel your findings or if I can be of any further assistance, please contact me.

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